Department of Commerce
Strategic Information Technology Plan
2002-2006

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Office of the Chief Information Officer Objectives

The Commerce Department's Office of the Chief Information Officer is responsible for ensuring that the Department's programs make full and appropriate use of information technology. It supports the increased use of leading edge technology to enable the Department to carry out its mission better, with improved products and services at the lowest cost.

The Office oversees the expenditure of over $1 billion each year for computer hardware, software, and services, and for networking and telecommunications, and other information technology (IT). This is accomplished by the development of policies and other guidance for Department-wide planning and use of IT, and through a capital asset management process centered on a Commerce IT Review Board. This process reviews and evaluates proposed IT initiatives and requests for acquisitions, and also reviews and evaluates ongoing IT projects.

To ensure the integrity of the Department's IT systems, information products, and services based on these information products, and to ensure continuity of operations, high priority is being accorded to IT Security and Critical Infrastructure Protection activities within the Office.

High priority is also given to the use of the Internet World Wide Web and other means to provide large amounts of data and information to citizens and businesses in all the Department's program areas, and to support transaction-oriented electronic Government that brings the Department closer to its customers and helps it to function more efficiently.

Introduction

Goals and Objectives:

The Department of Commerce mission is to promote job creation and improved living standards for all Americans by creating an infrastructure that promotes economic growth, technological competitiveness, and sustainable development. Below are the Department's strategic goals.

Strategic Goal 1:   Provide the information and the framework that enable the economy to operate efficiently and equitably. In this Goal, we will encourage and support economic expansion and increase the prosperity of all Americans. We recognize the importance of job creation, the need for sound information for effective decision-making, and the need to build strong communities that can support economic expansion.

Strategic Goal 2:   Provide the infrastructure for innovation to enhance American competitiveness. In pursuing this Goal, we will provide the infrastructure that will enable U.S. businesses to maintain their technological advantage in world markets. Globalization and the technology-driven productivity gains of the new economy are providing us with new challenges. Continued partnership, collaboration, and cooperation between the Department of Commerce and industry will enhance and promote the technological edge of the U.S.

Strategic Goal 3:   Observe and manage the earth's environment to promote sustainable growth. Under this Goal, we envision a 21st century in which environmental stewardship,

assessment, and prediction serve as keystones for enhancing economic prosperity and quality of life, improving the protection of lives and property, and strengthening the U.S. balance of trade.

Effective investment and management of Commerce IT resources are critical to the successful outcome of its programs. The Department of Commerce is a major IT organization. In FY 2002, Commerce spent $1.215Billion on IT services that include hardware, software, in-house personnel, support services. In FY 2003 and 2004, the Department plans to spend $1.391B and $1.57B respectively on IT services. As a percentage of total agency expenditures, Commerce ranks among the top agencies in the Federal Government in IT spending. This demonstrates that proper planning and management of IT resources, including exploration of outsourcing, are absolutely vital to the very essence of the Commerce mission and reflect on our ability to serve our customers.

The plan should be viewed in several ways. First, it is a visionary document, giving form to an environment to which Commerce operating units should strive. It also provides a template that can be adapted by the operating units as they formulate individual plans. Finally, it is a measuring stick that the Department will use in the coming years to determine our success in progressing toward this vision.

This plan highlights crosscutting IT initiatives and provides a strong link to the Secretary's Strategic Plan, Departmental missions, and the Executive Management Team's objectives.

Please direct comments or questions to the Office of Information Policy, Planning, and Review at (202) 482-0335.

Commerce IT Management

Goals

The management goal for IT in the Department of Commerce is to improve delivery of programs and services by capitalizing on the use of technology to support objectives in the Commerce corporate plan. This goal anticipates an IT environment that promotes electronic transactions, dissemination, and easy access to the Department's information and where the latest environmental, economic, and census information is available anytime and anywhere. It is an environment that provides Commerce managers with the right kind of information to inform the decision making process.

We have established the following goals to support our strategic IT management initiatives and Commerce program mission goals:

Goal 1.   To provide strategic leadership for the management of IT resources at the Department of Commerce, and ensure consistent, disciplined decision-making in the investment of Department resources.

Goal 2.   To reduce the amount of paperwork required for individuals, businesses, and State and local Governments to conduct business with the Department, and reduce the amount of paperwork required in the Department's internal workings.

Goal 3.   To provide senior-level decision makers within Commerce with thorough and accurate information to ensure that Commerce's IT capital assets are planned, acquired, and managed in full compliance with the range of results-oriented requirements of such Federal mandates as the Clinger Cohen Act, the E-Government Act, the Government Performance and Results Act, the Government Paperwork Elimination Act, and OMB's Circulars A-130 and A-11.

Goal 4.   To provide high-quality IT products and services that fully meet the business needs and accessibility of the Department's customers, business partners, and stakeholders.

Goal 5.   To ensure that the Department of Commerce takes full advantage of information technology to improve its mission performance.

Goal 6.   To increase the interoperability, technical efficiency, and cost effectiveness of Commerce IT systems.

Goal 7.   To advance the e-Government strategy identified in the President's Management Agenda by demonstrating continual improvement in the electronic delivery of Commerce's services both within the Department and between Commerce and our stakeholders.

Goal 8.   To provide reasonable and acceptable assurance that Commerce's IT systems and information resources are provided adequate protection; that data and software integrity is maintained; and, that unplanned disruptions of processing will not seriously impact mission accomplishment.

Goal 9.   To develop, implement, and enforce policies and procedures to ensure the privacy of personal and proprietary information for Commerce's customers and stakeholders.

Goal 10.   To ensure that Commerce maximizes the quality, objectivity, utility, and integrity of the information it disseminates.

Together these goals provide the foundation and direction for Departmental IT programs that provide direct support to Commerce strategic business goals.

Chief Information Officer (CIO) Organization Restructuring

Highlights of the CIO's effort to restructure the Department's CIO organization to address fully Clinger-Cohen goals and improve IT management include:

➢ Each operating unit and major organization will establish a CIO who reports to the head of the operating unit (Under Secretary, Assistant Secretary, Director, or Administrator) or principal Deputy.
➢ Operating unit CIOs are responsible for advising the operating unit on all aspects of IT and for developing and recommending policies for managing IT within the operating unit, consistent with Departmental policies and guidelines.
➢ Operating unit CIOs will have line authority and responsibility for centralized IT functions.
➢ Operating unit CIOs must concur in the budgeting and expenditure of all funds for IT by the operating unit.
➢ The performance plan for each operating unit CIO will include information technology management elements; the Departmental CIO will contribute to the evaluation of these elements.

Overview of Commerce IT Planning Process

Objectives of the Department's IT planning process are:

➢ To create a process that ensures that the best information is available for IT decision making;
➢ To leverage the power of IT to improve delivery of Commerce missions and services;
➢ To evaluate and anticipate future trends in IT;
➢ To ensure that key stakeholders are involved in the planning process;
➢ To select the right IT solution, closely monitor its implementation, and evaluate results;
➢ To ensure that security and privacy principles are fully integrated in IT solutions;

> ➢ To promote the full integration of program planning; IT planning and management; IT Security management; budget; acquisition; selection, control, and evaluation processes; and
> ➢ To deliver <u>value</u> to Commerce customers.

The Commerce IT planning process requires that each operating unit develop strategic and operational IT plans. The purpose of the strategic IT plan is to focus attention on the high-level, strategic application of IT to Departmental missions. Operational IT plans are then developed to show the detailed actions and resources necessary to achieve strategic plan goals.

IT Plan Evaluation and Approval

Consistent with the maturity of the IT planning processes at Commerce and with the new organization structure that gives operating unit CIOs full responsibility and accountability for their strategic and operational IT planning, operating unit CIOs assess their planning processes annually against a capability maturity scale and apprize the Department's CIO on progress.

The IT plan development process is integrated with the Department's budget development and review process. This integrated process significantly enhances IT decision making. The Office of the Chief Information Officer coordinates IT planning with budget calls to the operating units to support the plan development and budget review process. These IT plans highlight budget year initiatives, addressing key planning questions such as: how well does the project support core/priority missions; does it support re-engineered work processes; is the return on the investment sound; does the project comply with architectural goals; are risk factors, including security and privacy, identified and addressed? IT projects must clearly demonstrate alignment with the strategic program and IT plan to successfully complete the budget review process.

Clinger-Cohen Act Implementation

In July 1998 the Department of Commerce hired a Chief Information Officer charged with the authority and responsibility for fulfilling the CIO requirements outlined in the Clinger-Cohen Act. The Commerce CIO reports directly to the Secretary on critical IT matters and has Department-wide responsibility for the effective management of IT resources. To strengthen the Department's CIO organization, the CIO restructured operating unit CIO reporting relationships. This move provided operating unit CIOs with more responsibility, accountability, and resources to meet the management goals set forth in the Clinger-Cohen Act.

To support IT decisions made at the highest levels, the Department instituted a three-phased IT capital planning and investment review process for the selection, control, and evaluation of IT investments. This planning and review process builds upon criteria established by the Office of Management and Budget and the General Accounting Office. The process is designed to complement the differences in mission, size, and management style of Commerce's operating units.

Commerce Information Technology Review Board (CITRB)

The CITRB charter calls for the Board to make recommendations to the Secretary or Deputy Secretary for approval or disapproval of new IT projects and recommendations for projects under development at key milestones or when they fail to meet performance, cost, or schedule criteria. Meeting for the past several years, the CITRB has made significant progress in working as a team to promote improved IT decision-making. The CITRB plays an active and decisive role in the evaluation of IT initiatives for budget year projects. Each proposed project that meets minimum screening criteria is evaluated by the CITRB. Project sponsors are given an opportunity to correct deficiencies and improve their scores. Projects that receive satisfactory ratings are forwarded as approved by the CIO for the budget review process.

The CITRB's control and evaluation reviews address projects that are in progress, at key milestones, or when concerns arise. These reviews ensure that ongoing systems are meeting cost, schedule, and performance goals. The Board directs corrective actions, as necessary. The Office of the CIO staff reviews IT systems that are not reviewed by the CITRB at least annually.

Communicating IT Objectives

Commerce Chief Information Officer's Council

The Departmental CIO views the CIO Council, composed of operating unit CIOs, as a management team working together to achieve common objectives. The Department's CIO Council meets monthly to share information, promote Departmental IT goals, and keep abreast of public and private sector leading IT management practices.

Information Technology Conference

The Office of the CIO holds periodic conferences to address planning and budget guidance, policy, and trends in the management and use of technology. The IT conference held in the spring 2001 highlighted IT program changes that introduced new processes and schedules for IT strategic and operational planning, the Commerce IT Review Board, and the CIO restructuring initiative mentioned previously. An overriding theme of the conference was full integration of IT planning, budgeting, and acquisition processes. A joint conference of IT, Budget, and Acquisition experts emphasizes our commitment to such integration. The next conference is planned for the spring 2003.

Information Technology Security Coordinating Committee

Commerce recognizes that IT Security is an ever-important factor in the proper management of our IT resources, and has dedicated itself to meeting the challenge of protecting all its vital information assets through increased attention to an invigorated IT Security Program. Part of the IT Security challenge is in ensuring full and open communication among all our operating units. To meet this challenge, the Department has chartered the Information Technology Security Coordinating Committee (ITSCC).

This group serves as a Department-wide forum for addressing issues and making recommendations related to IT Security responsibilities and activities, and is sponsored by the Commerce CIO. The ITSCC provides a forum for discussion of issues, working groups to define and resolve technical IT security problems, and recommendations concerning IT security throughout the Department. The ITSCC has also proven to be a fruitful training field for new IT Security Officers and a source of continuing education for current IT Security Officers.

The ITSCC meets on a monthly basis and often serves as the impetus for new IT Security-related initiatives.

Department of Commerce Affinity Groups

As Commerce has continued its work toward fulfilling its various strategic goals, we have maintained a focus on innovation, attempting to develop a complete understanding of the needs of our customers, business partners, and stakeholders. This focus on innovation allows us to identify both efficiencies and gaps in services, and to identify solutions that are as comprehensive as possible. Additionally, we strive to find ways to incorporate our users' understanding and acceptance into the concept and development phases of our business processes. One concept that we have incorporated in accomplishing this goal is the use of affinity and other groups. These groups, made up of technical and program representatives from the DOC bureaus, are tasked with addressing specific IT-related challenges facing the Department.

The fundamental idea behind forming affinity and other groups is that those involved in providing particular services are in the best position to make decisions about how to coordinate, implement, and improve them. The group is able to synthesize greater knowledge as to what has worked well, what hasn't, and what problems can occur. By drawing on members from all areas of Commerce, the group is better able to understand the needs of our customers, business partners, and stakeholders and to devise effective and efficient ways of meeting those needs.

Commerce has utilized affinity and other groups to develop, recommend, or facilitate technical solutions in a number of areas. These groups are formed as a need arises and are typically disbanded when a technical solution is in place, fully operational, and no longer in need of continual maintenance attention. Groups that have completed their work include the Contingency Planning Affinity Group, which published a comprehensive guide to business continuity planning, and the Electronic Forms Affinity Group, which published a Web site of Commerce and Government-wide electronic forms. Groups that have largely completed their work, but continue in an advisory capacity, include the Accessibility Coordinators Group, which published Commerce's policy addressing accessibility under Section 508 of the Rehabilitation Act and continues to monitor accessibility activities within Commerce and elsewhere, and the Information Quality Working Group, which published Commerce's Information Quality Guidelines, provides advice to operating units that receive requests for corrective action, and submits annual and ad hoc reports to the Office of Management and Budget on information quality activities.

Affinity groups currently operating within Commerce include the following:

Commerce IT Architecture Affinity Group

An IT Enterprise Architecture is recognized by Commerce's CIO as an integrated framework for evolving and maintaining existing IT, and for acquiring new IT. The IT Architecture is a means to achieve Federal strategic and IT goals by integrating work processes and information flows through the use of technology. The architecture specifies standards that enable information exchange and resource sharing. To ensure that this information exchange and resource sharing are maximized throughout the Department and that our operating units are able to make maximum use of a "blueprint" that explains and guides our organization's IT and information management elements, the Department has chartered an IT Architecture Affinity Group.

The Department's IT Architecture Affinity Group serves as a Department-wide forum for addressing issues related to the implementation and use of IT architectures. The IT Architecture Affinity Group reports to the CIO Council and is viewed by the CIO Council as a resource to assist the various operating units in the development of consistent IT Enterprise Architecture(s) throughout the Department.

The DoC IT Architecture Affinity Group is specifically tasked to make recommendations and provide advice with respect to policy, procedures, standards, and payoff as they relate to the development, maintenance, and evolution of the Department's Federated IT Enterprise Architecture(s). This tasking has, to date, included activities to:

- Prepare guidance for the development of a Department-wide Federated IT Enterprise Architecture
- Provide comments and guidance to the operating units as they prepare their architectural documents.

- Determine representative "foundation" technologies for the Department.

- Perform as a working group for tasks specifically assigned by the CIO Council.

- Promote the adoption and improvement of IT architectural practices throughout the Department.

- Share experiences, ideas, and promising practices among Group members.

- Identify and implement an automated tool to assist in the preparation of Commerce's Federated Enterprise IT Architecture.

- Link Commerce's Architecture to the Federal Architecture Reference Models.

- Identify opportunities for consolidation of duplicate efforts within Commerce's architecture.

The IT Architecture Affinity Group meets as needed, generally on a bi-weekly basis, and has served as the impetus for the adoption of innovative IT Architecture Plans in numerous Departmental operating units.

WebMasters Affinity Group

The WebMasters Affinity Group (WAG) provides advice to the CIO and CIO Council on matters that address use of the World Wide Web. Because use of the Web is central to Commerce's e-government activities, careful use and management of Commerce's Web sites is critical to the success of our e-government strategy. The WAG has published a series of policies addressing such Web issues as privacy, accessibility, domain names, identification of Web site owners, endorsement disclaimers, and content management. Additional policies are under development.

Goals, Strategies, and Performance Measures in Support of Commerce Missions

Management objectives of the Department's IT program include the following over-arching IT goals. Together these goals provide the foundation and direction for Departmental IT programs that provide direct support to Commerce strategic business goals.

Goal 1. **To provide strategic leadership for the management of IT resources at the Department of Commerce, and ensure consistent, disciplined decision-making in the investment of Department resources.**

Strategy 1.1: Provide leadership by example by establishing a Departmental CIO organization with the vision to provide strategic management of Commerce's wide array of IT resources.

Status: Completed. Commerce has established a CIO office and recruited a CIO with broad IT management expertise. Restructuring of the subordinate portions of the Commerce CIO organization is almost complete.

Strategy 1.2: Ensure that Commerce's Departmental vision for IT management and investment is inculcated at the operating unit level and that Government-wide initiatives are fulfilled.

Status: Major changes in the responsibilities, reporting relationships, and accountability of the operating unit CIO's have been implemented. Performance appraisal of the operating unit CIOs is now partially vested in the Departmental CIO, compliance with Government-wide mandates is monitored and enforced through the CIO organization, and investment in IT resources is managed through the CITRB.

Strategy 1.3   Ensure that individuals assigned to serve as project managers for IT investment initiatives are fully qualified, as demonstrated by professional and/or educational credentials, to serve in that position.

Status: Ongoing. Commerce has made thorough consideration of the requirements for effective management of IT initiatives a priority in its investment review and control program. Review and approval of proposed project managers' professional and/or educational credentials is now a part of the CITRB review process.

Performance Goal 1.1:   Establish a Departmental CIO organization with sufficient staffing to monitor operating unit performance in the achievement of Department-wide IT initiatives.

Status: Partially completed. The position of CIO has been filled and full staffing of the subordinate organization is expected by FY 2003.

Performance Goal 1.2   Establish operating unit CIO organizations, as defined earlier, with sufficient staffing to manage IT resources in compliance with the Clinger-Cohen Act and other Government-wide mandates.

Status: Completed for all operating units, with modified reporting structures in the Economics and Statistics Administration and the Bureau of Industry and Security. The National Institute of Standards has established a CIO position and will recruit to fill it.

Performance goal 1.3   Establish a mechanism whereby the CITRB will be able to apply a standard set of metrics to the qualifications of individuals proposed as project manager for an IT investment initiative.

Status: Ongoing. Staff from the CIO's office have developed a set of metrics designed to measure project manager qualifications. Staff have also developed a project manager resume format and content guide. The resume is designed to elicit information specific to project management, and was submitted for CITRB approval in January 2003.

Performance goal 1.4:   Ensure that all individuals assigned to serve as project managers of Commerce IT investment initiatives meet the requirements for certification as a project manager, as defined by the Departmental CIO and the CITRB.

Status: Ongoing. Staff from the CIO's office are currently researching training and certification programs, to include training content, training delivery methods, and integration of training/certification procedures with those required for Contracting Officers and Contracting Officer's Technical Representatives. Commerce expects to finalize IT Project Manger certification requirements before the end of FY

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2003, and to require that all individuals assigned as IT project managers meet those requirements before assignment.

Goal 2. **To reduce the amount of paperwork required for individuals, businesses, and State and local Governments to conduct business with the Department, and reduce the amount of paperwork required in the Department's internal workings.**

Strategy 2.1: Intensify efforts to implement initiatives that provide opportunities for data sharing, reduction of reporting burden, elimination or reduction of duplicate data requests, and simplified reporting.

Status: The Department has initiatives underway to reduce both public reporting burden and internal paperwork requirements. These are being tracked through the Government Paperwork Elimination Act (GPEA) management processes. Commerce is currently on target to meet its GPEA goals.

Strategy 2.2: Require, through the IT planning process and other IT management processes, that information collection and dissemination activities are conducted using innovative IT electronic applications.

Status: Completed. The Department's Strategic IT planning call and CITRB processes required operating units to address the use of IT to reduce reporting burden. A demonstrable e-Government goal is a CITRB criterion for approval of all new IT initiatives. Commerce is committed to adopting electronic signature protocols to facilitate e-Government activities, and will implement its first electronic signature application for Web-based time and attendance reporting in FY 2003.

Performance Goal 2.1: Demonstrate the effective use of technology and data sharing by significantly reducing the amount of paperwork generation required in both Commerce's dealings with the public and internal Departmental operations.

Status: In FY 2001 and FY 2002, Commerce exceeded the paperwork elimination goals identified in its annual GPEA plans. The goal of 25 conversions in FY 2001 was exceeded by the actual achievement of 28 transaction conversions and the FY 2002 achievement of 67 transaction conversions represented an achievement of 56% over the Department's GPEA goal.

For FY 2003 the Department has, through collaboration with OMB, increased the number of transactions targeted for conversion to an electronic option from 123 to 214 (an increase of 74%), and is on track to meet its revised GPEA goals. The Department's CIO has committed to making processes, not just forms, electronic and has instituted a monthly review process as well as announcing his attention to hold a mid-year review of progress toward meeting Commerce's FY 2003 goal.

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Goal 3. **To provide senior-level decision makers within Commerce with thorough and accurate information to ensure that Commerce's IT capital assets are planned, acquired, and managed in full compliance with the range of results-oriented requirements of such Federal mandates as the Clinger Cohen Act, the E-Government Act, the Government Performance and Results Act, the Government Paperwork Elimination Act, and OMB's Circulars A-130 and A-11.**

Strategy 3.1: Implement a Department-wide process for the selection, control, and evaluation of IT investments.

Status: Ongoing. Commerce has implemented a multi-faceted process, which includes preliminary operating-unit IT review boards or processes, standardized rating and ranking processes, and senior-level Departmental review through the CITRB. Operating units are maturing in their implementation of this process, and are demonstrating improvements in the quality of IT acquisition proposals submitted to the CITRB. Commerce intends to extend use of the Information Technology Investment Portfolio System to automate and provide more consistency in the operating unit processes.

Strategy 3.2: Implement a Departmental IT review board to advise the Secretary and/or Deputy Secretary on critical IT matters.

Status: Completed. The Commerce IT Review Board meets monthly to address ongoing IT planning, acquisition, and implementation issues, and is convened in a special session in the spring to evaluate IT initiatives in the budget review process.

Strategy 3.3: Implement, at the Department level, a standard process for the rating and ranking of IT acquisition initiatives and ensure that this process provides senior-level decision-makers with quantified information as to those initiatives deemed best suited to assist in the achievement of Commerce's strategic goals.

Status: Completed. The rating and ranking criteria are revised as necessary to address lessons learned. The most recent revision was November 2002.

Strategy 3.4: Ensure that operating unit CIOs implement effective processes for managing IT resources and that these management processes properly support the Department's strategic goals. Monitor these efforts, in part through regularly scheduled briefings of both the Departmental CIO and the CITRB. Through the annual review process, hold the operating unit CIOs responsible for the implementation of effective management processes.

Status: Completed. The operating unit CIOs and their management staff regularly provide briefings to the Departmental CIO and the achievement of effective management is a performance factor considered in the input to the operating unit CIO's annual performance review.

Strategy 3.5: Implement an automated system to assist in the planning, evaluation, selection, and control of IT projects.

Status: All FY 2004 budget initiatives were submitted to the Office of Management and Budget through the Information Technology Investment Portfolio System (I-TIPS). The Department will also extend use of the Information Technology Investment Portfolio System (I-TIPS) to support portfolio management.

Performance Goal 3.1: Institute, in every operating unit, an effective and consistent process for the selection, control, and evaluation of IT investments, and demonstrate the effectiveness of this process through the delivery of IT projects which are on time, within budget, and fully capable of delivering anticipated benefits.

Status: The capability of Commerce operating units to select, control, and evaluate IT investments effectively is maturing. Commerce's major operating units, including the National Oceanic and Atmospheric Administration and the Bureau of the Census, have implemented well-founded processes, including formal Investment Review Boards, and have demonstrated mature capabilities in the IT investment process.

Performance Goal 3.2: Demonstrate the effective operation of a Departmental IT investment review and control process, which regularly and consistently reviews IT investment opportunities and provides meaningful, objective, and accurate information for executive IT decision making.

Status: In order to provide a means of objectively assessing its capital planning and investment review process, Commerce has adapted Carnegie Mellon University's Software Engineering Institute's software maturity model to Commerce's Capital Planning and Investment Review process. This maturity model provides for the assessment of Commerce's IT Planning and Investment Review process on a graded scale of 0 to 5, with a score of 0 representing "No IT Planning Program" and a maximum score of 5 representing a process which includes "Continual Improvement of the IT Planning Program." Commerce's score, utilizing this maturity model, has risen from '1' (Informal IT Planning Program) in FY 2000 to 41% at '3' (Defined IT Planning Program) in FY 2002.

Commerce's goals for FY 2003 (60% at '3' or higher, and 30% at '4' (Managed IT Planning Program)) are stretch goals, set at levels to encourage and require continued improvement throughout the Department in IT planning and investment review and control.

Goal 4. **To provide high-quality IT products and services that fully meet the business needs and accessibility of the Department's customers, business partners, and stakeholders.**

Strategy 4.1:   Incorporate customers' views in the Department's IT planning and decision making processes.

Status: The Department's strategic IT planning process requires the involvement of customers in the plan development process. Customer involvement is also a factor used to rate and rank proposed IT projects in the investment review process.

Strategy 4.2:   Develop and enforce a policy that ensures full, unrestricted access to Commerce IT systems by individuals with disabilities. Ensure that operating units develop accessibility programs that fully implement the provisions of this policy.

Status: Partially completed. Commerce has developed an accessibility policy, and the operating units have developed programs that implement this policy. The April 2002 self-assessment of Web accessibility indicates that 80% of Commerce Web sites are accessible to individuals with disabilities.

Performance goal 4.1:   Develop a method of measuring customer satisfaction with Commerce IT initiatives, develop metrics to define customer satisfaction levels, and demonstrate compliance with a customer satisfaction level of highly-satisfactory as defined by the selected metrics.

For FY 2004, develop or adopt metrics designed for conveying results of customer satisfaction surveys and require Commerce operating units to include in their Strategic Information Technology Plans a method for measuring customer satisfaction with their IT initiatives.

For FY 2005, conduct customer satisfaction surveys for selected internal IT systems, apply the selected metrics to those customer satisfaction surveys, and establish a baseline of customer satisfaction for all impacted IT initiatives.

For FY 2006 and beyond, demonstrate improvements in customer satisfaction and user accessibility with internal IT systems by achieving higher scores on customer satisfaction surveys. Implement customer satisfaction surveys for high-impact Departmental systems with an interface to the public.

Goal 5.   **To ensure that the Department of Commerce takes full advantage of information technology to improve its mission performance.**

Strategy 5.1   Encourage the reengineering of business processes so that the Department's day-to-day operations will be able to exploit the latest developments in IT to improve mission performance.

Status: Initial phase of implementation. Commerce's CIO structure directly supports the use of information technology to improve mission performance. Commerce CIOs

have a seat at the table with top-level program managers. The CIOs are positioned to understand mission needs and propose innovative e-government technology solutions to meet those needs.

Commerce has begun to use the Federal Enterprise Architecture Business Reference Model (BRM) to develop a functionally driven approach to describing the business operations of the entire Department. The first version of the BRM was used in the submission of Commerce's FY 2004 budget, and the revised version of the BRM will provide Commerce a tool for identifying areas for collaboration both throughout the Department and across other Federal agencies. Compliance with the BRM is now a criterion for CITRB approval of Commerce IT investment initiatives.

Strategy 5.2 Utilize the BRM and the Federal Enterprise Architecture Performance Reference Model (PRM) as a business-based framework to develop Department-wide business process performance measures. Formalize performance measures that are clearly linked to Commerce mission goals and that support the tracking of schedule, cost, and performance achievement. Incorporate OMB's Program Assessment Rating Tool (PART) as an analytic tool in evaluating Commerce's business processes, and link the assessment of IT investment initiatives and their support of Commerce's mission, in part, to the program ratings received through this analysis process.

Status: Initial phase of implementation. Incorporation of defined performance measures, both in support of mission goals and as project management tools, is a criterion for CITRB approval of an investment initiative. Commerce has begun deployment of the PART as an internal tool for program self assessments and will, where they exist, incorporate the findings of PART-based self assessments in the capital planning and investment review process as one tool to help measure the contribution of IT initiatives to Commerce's overall mission.

Strategy 5.3 Ensure that Commerce IT management maintains a focus on improvement of their mission performance and that identifying opportunities to take advantage of leading edge technology is part of that focus.

Strategy 5.4 Inculcate in the CITRB a focus on the use of new technology and ensure that management of the continuing introduction of new technology is a part of the CITRB review of new IT Initiatives.

Performance Goal 5.1 Achieve Department-wide compliance with the BRM and PRM through submission of investment initiatives that are fully supportive of pertinent Commerce mission goals, make maximum use of effective technology and reengineered business processes, and contribute to an overall improvement blueprint for the Department.

Performance Goal 5.2   Ensure that the Commerce OCIO maintains the resources required to track the latest information technology and to factor the use of that technology into the management of IT throughout the Department.

Status   A reorganization of the Commerce OCIO that will charter an Advanced Technology Group to perform this function has been proposed and is currently in final Departmental approval.

Performance Goal 5.3   Include evaluation of operating units' use of available technology and technology refreshment plans as a formal part of the CITRB evaluation process.

Goal 6.   **To increase the interoperability, technical efficiency, and cost effectiveness of Commerce IT systems.**

Strategy 6.1:   Establish an IT Architecture Program for the Department and support enterprise architecture development.

Status: Completed. An IT Architecture Affinity Group, composed of members from across the Department, has established architecture guidelines, evaluation criteria, and a maturity scale. Commerce has developed a Federated Enterprise Architecture, with a high-level Departmental architecture plan, which serves as the over-arching driver for Commerce's architecture efforts. Each of the operating units with major IT systems has completed its own IT Architecture Plan, in conformance with the Department's architectural guidelines, but reflecting the operating unit's own unique organizational requirements. The Affinity Group meets regularly to provide formal comment and advice to architecture developers.

Strategy 6.2:   Include architectural compliance as a key decision criterion in Departmental and operating unit IT selection, control, and evaluation processes. Ensure that Commerce's IT investments are in compliance with all Departmental architectural guidelines.

Status: Maturing. Architectural considerations are included in the operational IT planning call and in IT investment review criteria. Compliance with the Federal Business Reference Model, as implemented through the Commerce Federated Enterprise Architecture, is currently a requirement for CITRB approval of all IT investments, and a Commerce Business Reference Model, tailored to the specific needs of the Department, will be invoked in FY 2004 as the standard for CITRB acceptance. Operating units currently include in their IT architecture plans a description of their governance processes. Eliminating system duplications, especially among administrative systems, is a key target of our IT architecture, and we have established this as a strategy for improving the cost effectiveness of our IT architecture (see Strategy 6.5 below).

Strategy 6.3:   Acquire the capability to apply an automated tool to the process of defining an organization's IT architectural plan. Ensure that the tool selected provides ease of use/maintenance, consistency of design definition, and a method of visualizing architectural linkages.

Status: Various automated tools have been evaluated and one has been identified for acquisition. The tool selected has been deployed in a pilot phase at the Bureau of Census and the National Environmental Satellite, Data, and Information Service (NESDIS). Deployment of this tool will be available to all operating units in FY 2004, and a Departmental architectural framework, intended to ensure standard use across all operating units, is under development.

Strategy 6.4   Complete a Department-wide analysis of the existing telecommunications networking infrastructure and assess Department-wide needs for improving efficiency and eliminating redundancy.

Status: In progress. In FY 2003 a major telecommunications and networking infrastructure improvement was accomplished through the rewiring of the Herbert C. Hoover building. This infrastructure improvement provides computer networking capability, including Voice over IP capability, to the approximately 4,000 tenants of the building.

In FY 2004 the Departmental Office of the CIO intends to monitor a planned National Weather Service (NWS) telecommunications and networking infrastructure assessment, with the intent of adapting the NWS assessment methodologies for similar assessment efforts in other geographically dispersed operating units.

In FY 2005 Commerce intends to apply the lessons learned in the NWS assessment to similar assessment efforts throughout the Department, and to synthesize the results of these assessments into an overarching assessment of the telecommunications and networking infrastructure serving the Department as a whole.

Strategy 6.5   Reduce, where possible, the number of redundant administrative systems operated within the Department. Conduct a thorough inventory of administrative systems operating in all DOC operating units, evaluate similarities, and develop an approach to combining or eliminating redundant systems.

Status: DOC has begun a process to analyze administrative systems in use within the Department, identify those that are indeed redundant systems, determine if there is a real benefit from consolidation, and finalize a list of application areas targeted for consolidation.

Performance Goal 6.1:   Demonstrate continual improvement in both the Department's and operating units' architectural maturity as measured by a Capability Maturity Model.

Status: The Affinity Group monitors operating unit architectural activities, and most operating units have demonstrated improvement over the past fiscal year. Metrics for measuring progress in IT Architecture Program implementation have been developed based on the IT Architecture Capability Maturity Model. Commerce has adapted the Carnegie Mellon University's Software Engineering Institute's software maturity model as a means of measuring architectural maturity and the metrics presented in that model are used by the Affinity Group to measure the maturity of an operating unit's IT architecture processes with the overarching Departmental architectural guidance. Commerce is progressing in its program maturity. Commerce achieved a level of 82% at '2' (IT Architecture Process in Development) or higher and 59% at '3' (Defined IT Architecture Including Detailed Written Procedures and Technical Reference Model) or higher in FY 2002 and has set as its FY 2003 goals 90% at '2' or higher, and 66% at '3' or higher. These are stretch goals, set at levels to encourage and require continued improvement throughout the Department in IT planning and investment review and control.

Performance Goal 6.2:   Incorporate compliance with Departmental architectural guidance and plans as a criterion for CITRB approval of IT acquisitions. Ensure that architectural considerations are part of the IT decision-making process within all operating units.

Status: Compliance with Departmental architectural guidance and plans is a consideration for all CITRB decisions and operating units are, through more architecturally mature IT presentations to the CITRB, demonstrating their compliance with Departmental plans and OMB's architecture reference models. Commerce also plans to use a contractor to provide an independent analysis of the compliance of a proposed investment with OMB, Departmental, and operating unit architecture plans.

In FY 2003, Commerce operating units linked their major systems to the Federal Business Reference Model in their Exhibit 300 business cases. In FY 2004, we will require that new IT initiatives comply with a Commerce-specific Business Reference Model.

Performance Goal 6.3:   Finalize an analysis of possible redundancies in DOC administrative IT systems by the end of FY 2003, and develop business cases to support decisions to either continue or combine/eliminate identified redundant systems. Incorporate the findings of this analysis in the next update of the DOC Enterprise Architecture and operating units' IT architectures.

Goal 7.   **To advance the e-Government strategy identified in the President's Management Agenda by demonstrating continual improvement in the electronic delivery of Commerce's services both within the Department and between Commerce and our stakeholders.**

Commerce's long-standing e-Government effort encompasses all of the processes, activities, and interactions that occur within the Department of Commerce and between the Department and its external customers and stakeholders, including the private sector, the Congress, the general public, etc. It is our goal to continue our progress toward a full electronic Government capability and provide as many of our services as practicable over the Internet.

The strategic initiatives outlined below were developed to support an electronic Government. They are based on an assessment of our agency's baseline situation and its challenges and risks, the performance metrics we are using to measure success, and the investments in people, processes, and technological infrastructure required to achieve our goal of an expanded electronic Government capability.

Through the Department's CIO Council and its affinity groups, the operating units are working together to identify common technical solutions for the implementation of Internet-based services. Each of the operating units and Departmental offices are reviewing the ways in which they conduct their internal business and are cooperating to achieve interoperability and provide new and more efficient solutions, rather than simply automating existing processes. We intend to transform the Department of Commerce into a truly electronic Government entity, demonstrating significant performance gains, and providing leadership at the national level.

Strategy 7.1:   Promote electronic Government by increasing the number of internal functions completed electronically, with interoperable interfaces between operating units and Departmental offices.

Status: A strategic electronic Government program plan was developed in August 1998. Specific initiatives are monitored through the Government Paperwork Elimination Act (GPEA) processes and are on track for completion by the target dates.

Strategy 7.2:   By increasing the number of Commerce products and services available on-line, provide our customers with easier and more efficient access to our e-Government capabilities.

Status: Each operating unit's Strategic IT Plan addresses electronic Government objectives, including a description of how each proposed IT initiative will meet Departmental goals. Compliance with Departmental e-Government goals is a requirement for budget approval of each new Commerce IT initiative. Additionally each operating unit has prepared a strategy for implementing GPEA requirements.

Commerce is actively participating in the 24 Government-wide e-Government initiatives. DOC's International Trade Administration is the managing partner of

the International Trade Process Streamlining initiative (ITPS), and NOAA and Census are actively involved in the Geospatial One-Stop initiative. Commerce is also participating in the integrated project team of Project SAFECOM, and is an active participant in Recreation One-Stop, e-Grants, e-Training, e-Travel, Integrated Acquisition, and e-Authentication. Commerce's back-end systems in these areas are being designed to complement, rather than duplicate, the Government-wide initiative.

Strategy 7.3:   Ensure that, to the maximum extent possible, Commerce's processes, products and services utilize information technologies that are shaping the digital revolution and that IT initiatives promote an integrated, efficient approach to improvement of the Department's business processes.

Status: The CITRB process for approval of new IT initiatives requires the submission of a business case, which provides justification and rationale for the technologies, selected. Adherence to Commerce's IT architecture is a requirement for approval in the CITRB process, and the Department's architectural guidelines are kept current to encourage utilization of cutting edge technologies. Department-wide solutions are proposed by affinity groups, approved by the CIO Council, and built into Commerce's Federated IT Architecture.

Strategy 7.4:   Incorporate in the strategic and operational IT planning process a mechanism for examining the potential application of leading-edge information technologies to improve the delivery of all Commerce services.

Status: The selection and application of information technologies appropriate to Commerce's e-Government strategy is a review criterion for Departmental approval of all operating unit Strategic and Operational IT Plans.

Performance Goal 7.1:   Ensure that every Commerce operating unit incorporates specific mechanisms in their IT planning processes to examine new applications of IT to support electronic Government objectives, and to assess the impact of the selected technologies on program efficiency and effectiveness.

Status: Departmental IT planning guidelines now require that the operating units' Strategic IT Plans include a discussion of electronic Government strategies. Operating unit IT planning processes are maturing and are becoming more consistent throughout the Department.

Performance Goal 7.2:   Demonstrate that the full range of Commerce products and services delivered to our stakeholders continues to exploit new and integrative technologies in the development of e-Government processes and that the conversion milestones set forth in GPEA are met.

Status: In FY 2002 and 2002 Commerce exceeded the paperwork elimination goals identified in its annual GPEA plans. The goal of 25 conversions In FY 2001 was

exceeded by the actual achievement of 28 transaction conversions and the FY 2002 achievement of 67 transaction conversions represented an achievement of 56% over the Department's GPEA goal.

Commerce's progress in offering its services and products online is demonstrated by the amount of traffic experienced by the Department's Internet Websites. In FY 2002 and FY 2003, Commerce has ranked among the top three Government agencies (including Federal, State, and local entities) serving a unique audience on the Internet. Measured on a monthly basis, and including both private-citizen and business-related usage, Commerce serves an audience ranging from 5.7 million to 7.7 million citizens each month.

Measuring our unique audience on a monthly basis, and including both private-citizen and business-related usage, Commerce, as a brand, has been ranked from as high as 50th to 81st as a Web property on the entire Internet.

The Department's CIO has committed to making processes, not just forms, electronic and has instituted a monthly reporting process as well as announcing his attention to hold a mid-year review of progress toward meeting Commerce's FY 2003 goal.

Goal 8.   **To provide reasonable and acceptable assurance that Commerce's IT systems and information resources are provided adequate protection; that data and software integrity is maintained; and, that unplanned disruptions of processing will not seriously impact mission accomplishment.**

Strategy 8.1:   Establish a structured IT Security Program in accordance with the Federal Information Security Management Act (FISMA), the Office of Management and Budget's Circular A-130, and other governing Federal documents. Ensure that all operating units comply with legislation and regulations through the preparation of risk assessments, security plans, contingency plans, etc. Ensure that the certification and accreditation process is completed for all Commerce IT systems.

Status: Commerce has devoted significant resources to the improvement of its IT Security Program and has reinvigorated the effectiveness of the program. Improvements are partially completed as described below:

> ➢ To ensure that all operating units comply with legislation and regulations, the Department established a compliance review program in FY 2002. Under this program, the Department conducts reviews using the General Accounting Office's Federal Information System Controls Audit Manual (FISCAM), verifies the completion of NIST 800-26 system self-assessment checklists on a sampling basis, confirms implementation of corrective actions in response to GAO and OIG audit reports, and validates IT security program management information (e.g., system risk

assessments, security plans, contingency plans) contained in the Department's IT system inventory database.

> ➢ The Department has a multifaceted approach to ensure that the certification and accreditation process is completed for all Commerce IT systems. First, the validation of information on over 600 systems in the Department's IT system inventory database, scheduled for update by the operating units in March, will confirm operating unit assertions that systems certification and accreditation has been completed. This validation will include confirming that all systems have current security plans and other required security planning documentation. The validation of this information is targeted for completion by June 30, 2003. Further, the Department will also review the quality of system certification and accreditation documentation to ensure that the process is not only completed for all systems, but also that it has been completed in accordance with Departmental policy and in a quality manner (i.e., documentation is complete, consistent, and accurate). The quality review of system certification and accreditation packages will begin with classified and national-critical systems, continuing with mission-critical systems (about 300 systems total) by September 30, 2003. Our stretch goal is to review certification and accreditation packages for these systems as well as all remaining business-essential systems (over 600 systems total) by September 30, 2003.

Strategy 8.2: In support of Strategy 8.1, revise and update policy to reflect recent legislation, OMB guidance, and the inter-networked environment in which we work.

Status: Completed. The DOC Policy and Implementation Standards for Remote Access Security was issued in December 2002 and the DOC IT Security Program Policy and Minimum Implementation Standards was issued in January 2003.

Strategy 8.3: Establish a structured critical infrastructure protection program leading to the identification of critical assets and the preparation of vulnerability assessments, corrective action plans, and reconstitution and response plans for effectively protecting our critical infrastructure.

Status: A Critical Infrastructure Protection Plan has been completed, critical assets have been identified, and budget needs have been identified. Progress is now being made to perform Project Matrix risk assessments on the most critical assets. The Critical Infrastructure Protection Plan will be revised to reflect new schedules and priorities identified through the risk assessment process.

Performance Goal 8.1: Demonstrate that all elements of the IT Security Program are in place and up-to-date and that management has reasonable assurance that the confidentiality, availability, and integrity of Commerce's IT systems will be maintained.

Status: Commerce has made significant progress in developing and implementing an effective IT security program. All the IT security deficiencies reported in GAO's FY 2001 audit have been corrected, and deficiencies noted in the operating units' self-assessments are included in corrective action plans as required by the FISMA. Commerce operating units report their progress to the DOC IT Security Program Manager on a monthly basis, and this information is incorporated into Commerce's quarterly status updates and annual report to the Office of Management and Budget as required by the FISMA. Implementation of the IT Security Program within the various operating units is monitored by the Department's IT Security Program Manager, and each operating unit has demonstrated improvement over the past fiscal year.

IT Security Program maturity, as defined in the Federal Information Technology Security Assessment Framework, is improving. In FY 2002, Commerce achieved an IT Security Program Maturity score of 70% at '2' or higher (on a scale of 1 to 5), 48% at '3' or higher, and 26% at '4' or higher. Commerce's goal is to have 85% of all IT systems at '2' or higher and 50% at '3' or higher by the end of FY 2003. Those IT systems not achieving level 3 maturity in FY 2002 have been placed on a corrective action track for FY 2003.

Performance Goal 8.2:   Demonstrate that Commerce has fully identified all of its IT-related critical assets, completed risk assessments for all of these assets, and taken appropriate steps to mitigate all identified risks.

Status: We have reviewed our inventory of IT-related critical assets, identified 35 of these assets as most critical, and are actively assessing these 35 assets in accordance with Project Matrix guidelines. We will update the Critical Infrastructure Protection Plan in FY 2003, and renew our efforts to seek funding for protection of the 35 most critical assets.

For FY 2002, Commerce had established a goal of detecting 85% of network intrusion attempts (based on a projection of 2,530 attempted intrusions). Actual performance for FY 2002 exceeded this goal, with a detection rate of 87% (1,441 detected attempts out of a total of 1665 attempted intrusion attempts). For FY 2003, Commerce's goal is to demonstrate a successful detection rate of 85% (2678 intrusion attempts detected out of a total of 3160 intrusion attempts).

Goal 9.   **To develop, implement, and enforce policies and procedures to ensure the privacy of personal and proprietary information for Commerce's customers and stakeholders.**

Strategy 9.1:   Ensure that all Commerce IT investment initiatives and efforts to collect personally identifiable information are in full compliance with the e-Government Act and that the Department implements a Department-wide standard for Privacy Statements and Information Collection.

Status: A Department-wide Web Masters Affinity Group has proposed policies, which have been accepted by the CIO Council, to ensure privacy on Commerce's Web sites. These standards are designed to ensure accurate and complete disclosure of the information collection practices of the Department of Commerce Web sites and to ensure that Privacy Statements are updated as these practices change. An April 2002 self-assessment indicated that, Department-wide, approximately 80% of Commerce's Web sites are in compliance with the policies.

Performance Goal 9.1   Ensure that all Web sites operated by the Department are in compliance with Federal regulations and Departmental standards intended to protect the privacy of personal and proprietary information relating to Commerce's customers and stakeholders.

Status: Privacy Statements are posted at all of Commerce's principal Web entry points. Privacy policies relating to all Commerce Websites have been disseminated and implementation of the policies is progressing. An April 2002 self-assessment indicated that, Department-wide, approximately 80% of Commerce's Websites are in compliance with the policies. Assessment of the operating units' compliance with privacy regulations and policies will be reassessed in FY 2003 and a target of 100% compliance has been established for this assessment.

Performance Goal 9.2   Ensure that all Commerce operating units prepare and submit a privacy impact assessment before developing or procuring information technology or initiating any new collections of personally-identifiable information. These privacy impact assessments will address what information is to be collected, why it is being collected, the intended uses of the information, with whom the information will be shared, what notice will be provided to individuals, and how the information will be secured. To the extent practicable, every Commerce privacy impact assessments will be published. Review and approval of the operating units' privacy impact assessments by the Commerce CIO will be a requirement for approval of the IT investment or proposed information collection.

Status: Commerce's capital planning and investment review now includes a check for incorporation of privacy impact statements where appropriate, and those initiatives presented without privacy impact statements are referred back to the submitting operating unit for correction and resubmission.

Goal 10.   **To ensure that Commerce maximizes the quality, objectivity, utility, and integrity of the information it disseminates.**

Strategy 10.1: Publish information quality standards and develop associated administrative correction mechanisms for each operating unit by October 1, 2002.

Status: Completed. Commerce's draft information quality standards and administrative correction mechanisms were completed and published on Commerce's Web site

by May 31, 2002. Public comment was solicited, with a comment period open through July 1, 2002. Final standards were published by October 1, 2002 after revision to address comments, including those from the Office of Management and Budget.

Strategy 10.2   Ensure that all Internet Websites operated by Commerce operating units are in full compliance with all appropriate legislation, regulations, and Departmental policies.

Status: Commerce's Web policy is structured to ensure that all of our Websites are in compliance with appropriate legislation and regulations. Departmental policy requires that operating unit CIOs certify to the Departmental CIO that all Web sites of their organization comply with the Department's Web policies. These policies address issues including content management, Website traceability and accountability, Website accessibility, visitor privacy, appropriate use, and annual Website certification.

In FY 2002, compliance with individual Web policies was demonstrated to range from 79% to 92%, with those policies requiring significant infrastructure investment lagging behind the more easily achieved policy requirements. Approximately 54% of Commerce's operating units reported 100% compliance with all Departmental Web policies.

Performance Goal 10.1:   Ensure that all information disseminated by Commerce's operating units and Departmental offices conforms to Commerce's information quality standards.

Status: Ongoing. Information quality measures have been built into the CITRB evaluation criteria to ensure conformity of IT investments with information quality standards. Also, requests to OMB for new or revised information collections are now linked to the information quality standards. To date, Commerce has not received any complaints through its Information Quality administration correction process. The Patent and Trademark Office, which manages its Information Quality Program separately, has received one request for correction.

Departmental Cross-cutting IT Initiatives

Major cross-cutting IT project initiatives underway in Commerce include the following:

Commerce Administrative Management System (CAMS)

The Commerce Administrative Management System (CAMS) was initiated in late 1993. The purpose of this system is to comply with key financial management legislation such as the Joint Financial Management Improvement Program (JFMIP) and the Government Performance and Results Act (GPRA), and to ensure that Departmental and operating unit financial management is fundamentally sound to protect funds and assets against waste, fraud, and abuse and to provide

more effective cost management. Pre-CAMS financial systems neither complied with the relevant financial management legislation nor effectively managed Departmental assets.

In FY 1999 the Bureau of the Census became the first Departmental operating unit to adopt CAMS as its system of records. The Office of the Secretary (OS), the Office of the Inspector General (OIG), and the Office of Computer Services (OCS) within OS followed in FY 2001, and in FY 2002 CAMS saw further adoption with the Bureau of Economic Analysis (BEA), the Economic Development Administration (EDA), the Economics and Statistics Administration (ESA), and the Minority Business Development Administration (MBDA). The National Oceanic and Atmospheric Administration (NOAA) and Bureau of Business and Security (BIS) have adopted CAMS as their system of records in FY 2003, and in FY 2004 will be followed by the National Institute of Standards and Technology (NIST), the Technology Administration (TA), and the National Telecommunications and Information Administration (NTIA). Through the use of CAMS, the Department of Commerce has, over the past three fiscal years, been able to exhibit greater efficiency in the production of our financial reports and receive an unqualified financial opinion.

The CAMS project provides returns on investment in several areas including cost, quality, and overall financial management. CAMS has improved the overall quality of financial data within Commerce and has increased the speed of preparation and use of financial data. The various data controls within CAMS help ensure that only accurate and valid financial data can enter the system. CAMS allows for data to be captured at the point of entry and the electronic routing of this data for review and approval.

The Congressional Financial Management Improvement Act requires all departments and agencies to use a financial management system that implements the US Standard General ledger (SGL) accounts at the detail transaction level and to be in compliance with the financial standards set by the JFMIP. The implementation of CAMS has allowed Commerce to fully comply with this Act and has significantly improved financial management within the Department. Program managers are now able to execute queries/reports to get real-time financial management data about their projects to determine how they are doing and to view the specific expenditures and receivables associated with their project. CAMS is able to automatically enforce funds control and Prompt Pay procedures and has allowed Commerce to effectively address and correct several material weaknesses identified by auditors at various operating units.

Commerce plans to use commercial products or existing Federal systems for the remaining functional CAMS modules. The CAMS project has a well-defined management structure and the CAMS implementation strategy seeks to ensure maximum user involvement at each stage. The CAMS Support Center has prepared a risk reduction and mitigation plan that exists in the form of an internal review report. Despite considerable progress, CAMS remains a special management concern and is being closely monitored by the Department.

The CAMS project supports Commerce Mission Goals #1, 2, and 3.

Electronic Government Program

The goal of the program is to place the Department on an expedited path to providing a full range of electronic Government services and to better serve its customers - citizens, businesses, and other Government agencies. We envision such electronic Government services to be citizen driven and user friendly; mission related and results oriented; transactional; universally accessible; collaborative; innovative; cost effective; and secure and private. The program can be viewed as having two focuses:

Customer interface, which is defined as the capability to exchange information with or provide data to people or units considered internal or external customers.

Conducting internal business, which refers to the exchange and storing of information and data (much of which is administrative) and the use of software to support a business process.

These activities will be addressed concurrently. However, the philosophy is that all internal business processes the Department conducts are in support of the Department's overall mission to deliver products and services efficiently and effectively to its customers. Emphasis will be placed on making visible strides in delivering electronic products and services to the Department's customers.

The scope of *customer interface* includes:
> Any process (automated or paper) that makes available to the public any document, form, data, or information (i.e., any product or service).
> Any data collection that requires the submission of a Paperwork Reduction Act filing.
> Any computer that processes the data collected from customers.

The scope of *conducting internal business* includes:
> Any process, automated or paper, that supports internal business operations.
> Any software package or automated application that supports an internal administrative process or exchange of information.

The Electronic Government Program supports Commerce Mission Goals # 1, 2, and 3.

Major Modernization Efforts

Bureau of the Census

21st Century Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) Enhancements

The 21st Century MAF/TIGER Enhancement program will be a major improvement to the quality and accuracy of the Census Bureau's digital geographic data, which is used by census takers throughout the U.S. as well as other state, local, and tribal Government entities and numerous academic institutions throughout the U.S. The MAF/TIGER Enhancement program is an example of the Department's strategic thrust to redesign its business processes through the

application of leading-edge digital technologies. Planning for the 21st Century MAF/TIGER adheres to Commerce's architecture and security guidelines, including those relating to accessibility (Section 508) and the Government Paperwork Elimination Act. The plan is supported by a comprehensive cost-benefit analysis and well-documented project management cost, schedule, and performance measurement baselines. Commerce's CIO issued a Delegation of Procurement Authority for the MAF/TIGER Enhancement program on November 27, 2001

The current Master Address File (MAF) is a complete and current list of all addresses and locations where people live or work, covering an estimated 115 million residences, as well as 60 million businesses and other structures in the U.S. The Topologically Integrated Geographic Encoding and Referencing (TIGER) portion of the project is a digital database that identifies the type, location, and name of streets, rivers, railroads, and other geographic features, and geospatially defines their relationships to each other, to the MAF addresses, and to numerous other entities. The Census Bureau's Geography Division maintains the two databases internally in the Department.

The proposed improvements to MAF/TIGER will allow the Census Bureau's data collection operations to adopt an integrated collection and update methodology for address lists and geographic data required for the 2010 Census, the American Community Survey (ACS), and household surveys. Additionally, the MAF/TIGER Enhancement program will allow for two-way sharing of high-quality address and geographic data with state, local, and tribal Governments as well as academic institutions throughout the U.S., and will allow the Census Bureau to provide the highest possible quality in the geographic products and services provided to its many statistical-data customers.

A modern processing environment will allow the Census Bureau to use commercial-off-the-shelf (COTS) products and Geographic Information Systems (GIS) tools to make significant performance improvements in existing processing systems.

Census has established MAF/TIGER performance goals as follows:

FY 2003 - Begin to implement geographic partnership programs by developing Web-based and interactive geographic updating systems, and complete map feature and required housing unit location corrections in 250 counties.

FY 2004 – Begin change detection methodology for identifying new growth areas

FY 2005 – Develop a Web-based update process that allows geographic partners to review and apply MAF/TIGER across the Web.

FY 2006 – Transfer all MAF/TIGER data into new database and discontinue use of current "homegrown" database, update and applications software.

The MAF/TIGER Enhancement program supports Commerce Mission Goal #2.

National Oceanic and Atmospheric Administration

Next Generation Weather Radar Planned Product Improvement (NEXRAD PPI)

NOAA's National Weather Service (NWS) provides the Nation with meteorological and hydrological services that are as complete, accurate, and timely as possible within existing scientific, technological, operational, and economic constraints. These services include data collection, data analysis, forecasting, and information dissemination. One of the most important elements of this overall mission is the NWS responsibility for public warnings and forecasts. The goal of this service is to provide the public with timely and accurate meteorological, hydrological, and oceanographic information for public safety and planning purposes and to ensure economic vitality.

The NEXRAD system is one of NWS prime observation systems for acquiring data and providing weather warning and forecast information about tornadoes, severe thunderstorms, and flash floods. NEXRAD PPI is a tri-agency initiative involving Commerce's NWS, the Department of Defense's (DOD) Air Force Weather Agency and the Department of Transportation's Federal Aviation Administration (FAA). This initiative aims to: (1) improve NWS tornado, large hail and flash flood warnings; (2) provide for cost effective long-term maintenance of WSR-88D weather radar units, and (3) provide cost effective recurring technological improvements postpone indefinitely the need to completely replace the WSR-88Ds. The Open System Architecture project, currently underway replaces the obsolete, 12-year-old computer and signal processing equipment in the WSR-88Ds with COTS hardware and standards-based open system compliant software. The existing WSR-88D equipment is growing increasingly expensive to maintain, and is unable to meet the processing demands of new scientific algorithms that improve the forecaster's ability to use radar data to identify tornadoes and other severe weather. NPI Open System Architecture and Dual Polarization projects will: enable the use of new algorithms and implement new radar engineering technology to increase the update rate of radar data acquisition; to acquire higher resolution data; to mitigate the range/velocity ambiguity problems; to remove non-weather clutter from data; and to acquire data to distinguish among rain, snow, and hail.

The NEXRAD PPI Program was established to plan and implement continued improvement of the NEXRAD system. The program goals are to: 1) improve reliability and maintainability to meet the strategic goal of advancing short-term warnings and forecast services for the general public, 2) meet FAA requirements for additional and higher quality products, and 3) meet DOD requirements for a radar user interface interoperable between NEXRAD and other Doppler weather radar systems.

In addition, NEXRAD PPI meets the NWS Vision 2005 Strategic Plan Goals, 1.1, Expand and Improve the existing weather, water, and climate product and service line: Increase the accuracy and timeliness of NWS warnings; 1.2, Produce a seamless suite of products and services linking weather, water, and climate with an emphasis on emerging climate products, and 2.2, Reduce the time required to implement proven research and technology into operations.

The NEXRAD PPI initiative includes a phased strategy for replacing three major components of the existing NEXRAD system with open system designs.

➢ The Radar Product Generation (RPG) component, the engine that creates weather information (forecaster products) from basic radar data, was replaced by deployment of the OpenRPG (ORPG) in FY 2002. This deployment allowed direct LAN–to-LAN connection between the ORPG and AWIPS, thus increasing data resolution from 16 levels of data to 256 levels of data. With the implementation of new software builds in FY 2003, the ORPG will provide improved severe weather algorithms for snowfall and damaging downburst, improved radar scan resolution, and use of data from FAA radars.

➢ The Radar Data Acquisition (RDA) component of NEXRAD controls radar operations and generates basic radar data estimates of precipitation strength and storm winds. The replacement for the RDA, the OpenRDA (ORDA) component, will be deployed beginning in late FY 2004 and will provide reflectivity data resolution down to ¼ km as opposed to the current 1 km, data sampling at every ½ degree versus the current 1 degree, and will significantly improve velocity product processing.

➢ Advanced polarization techniques for NEXRAD will follow the ORDA replacement phase. This phase, known as the Dual Polarization implementation, is expected to be fully deployed in FY 2010 and will provide improved precipitation identification and estimates.

Full deployment of the NEXRAD PPI will provide significant improvements to the National Weather Service's capability for producing tornado and severe weather warnings with greater accuracy, fewer false alarms, and with 50% greater lead times. Specific performance measures for these capabilities are as follows:

Performance Measures

	False Alarm Rate	Lead Time	Detection Probability
FY 2001	73%	11 minutes	.68
FY 2002	71%	11 minutes	.69
FY 2003	70%	11 minutes	.70
FY 2005	55%	15 minutes	.72

The NEXRAD PPI application supports Commerce Mission Goal # 3.

United State Patent and Trademark Office

Patent E-Gov

The workload of the United States Patent and Trademark Office (USPTO) has grown to the point that it can no longer be managed effectively in the existing paper-based environment. The Patent

e-Gov initiative includes electronic receipt, processing, reporting, and publication. This will enable the USPTO to migrate to a more efficient operating environment that supports the business goal of providing quality services and products in a timely manner to customers and stakeholders. Implementing the Patent e-Gov project allows USPTO to achieve and go well beyond its 21st Century Strategic Plan objective.

The Patent e-Gov project Performance Goals are identical to the USPTO's e-Government performance goals:

    1) electronic filing of 50% of patent applications by FY 2008; and

    2) electronic management of 100% of patent applications by FY 2008.

The increased use of automation contributes directly to Commerce's IT Management Goal of "using IT and electronic means to improve the delivery of Commerce programs and services". Patent e-Gov supports the President's Management Agenda item, "Expanded Electronic Government," by promoting the sharing of information more quickly and conveniently with the public, businesses, and other intellectual property offices. In addition, Patent e-Gov supports the strategic goal of a citizen-centric electronic Government by creating a fully electronic patent process that will not only reduce costs, but also help the USPTO to meet the high public demand for patent information and allow more efficient communication with the public and other USPTO customers worldwide.

While many e-Gov initiatives are multi-agency efforts within the Federal Government, the Patent e-Gov project is a global collaboration involving multiple countries and intellectual property organizations. Building on a long-standing arrangement known as the Trilateral Offices (European Patent Office (EPO), Japanese Patent Office (JPO), and USPTO), the USPTO and EPO have agreed to leverage each others systems' capabilities . This will eliminate redundancy through reuse, and will be reinforced by adopting World Intellectual Property Organization (WIPO) standards to ensure global interoperability.

As a first step in its Patent e-Gov Strategy, USPTO is introducing EPO's ePhoenix system to capture all new applications in image format in FY 2003. The next steps are to deliver an image-based patent application-processing pipeline by the end of FY 2004 and a text-based pipeline by the end of FY 2006 (based on file eXtensible Markup Language (XML)). Development will continue to deliver automated formalities review, amendment processing, and appeals processing by FY 2008. At that point, the USPTO will have eliminated most current manual functions and enhanced those that still exist with a fully electronic patent processing system. While building the electronic processing pipeline, several efforts are under way to increase the rate of electronic filing. In 2002, the USPTO awarded a no-cost contract to five vendors, collectively known as the Electronic Filing Partners (EFPs), to develop WIPO-standard compliant products that will be used to author XML-based applications and follow-on papers which will enter the pipeline through the USPTO's Electronic Filing System (EFS) server. The first deployment of these EFP products occurred in January 2003. Additionally, the USPTO is working in close cooperation with the EPO to integrate the EPO eOLF server and the USPTO EFS server into a single virtual server. The USPTO is also testing PatXML, EPO's electronic filing authoring tool, with

ePAVE, USPTO's electronic filing submission tool. If the results are favorable, the USPTO will integrate the EPO's final beta release with ePAVE.

The USPTO is undertaking the Patent e-Gov project to support its multi-path effort focusing on quality, timeliness, and efficiency to achieve customer satisfaction. We further expect that Patent e-Gov will provide relief from the time, space, accessibility, and quality problems associated with the use and updating of a paper-based patent application examination system. Patent e-Gov will enable Patent Business customers to create, and USPTO internal users to process, electronic patent applications and follow-on papers more easily and accurately; reduce time required for processing and responding to customers; automate routine patent formalities tasks so that patent examiners can focus on the intellectual aspects of examination; and continuously improve quality throughout the processes. By implementing Patent e-Gov, the USPTO will be able to reduce contractor costs, eliminate lost paper files, improve workflow tracking, and automate many support functions to yield a higher quality product. In a fully electronic environment, customers will be able to communicate electronically with USPTO 24 hours a day and be empowered to perform application update functions themselves, resulting in a much more citizen-centric patent process.

Selected Operating Units Systems

These selected IT projects, which support the Department's mission and strategic themes, provide a representative sample of the many IT systems at Commerce. The applicability of these representative IT initiatives to Commerce's Strategic Goals is depicted in Figure 1.

National Oceanic and Atmospheric Administration (NOAA)

Advanced Weather Interactive Processing System (AWIPS)

AWIPS is a technologically advanced information processing, display, and telecommunications system that is the cornerstone of the National Weather Service modernization effort. AWIPS is an interactive computer system that integrates all meteorological and hydrological data, and all satellite and radar data, and enables the forecaster to prepare and issue more accurate and timely forecasts and warnings.

AWIPS consists of an integrated suite of automated data-processing equipment deployed to field offices and National Centers to support complex analysis, interactive processing, display of hydro-meteorological data, and the rapid dissemination of warnings and forecasts in a highly reliable manner. A Wide-Area-Network connects sites for multi point-to-point and point-to-point communications. NOAAPORT provides the communications capability, via a satellite broadcast network, to afford internal and external users open access to much of NOAA's centrally-collected real-time environmental data. AWIPS was at one time a special management concern, but is now functioning smoothly in a steady state.

The AWIPS application supports Commerce Mission Goal #3.

Geostationary Operational Environmental Satellites (GOES)

NOAA GOES provides hemispheric and local coverage for measuring meteorological data used in predicting, monitoring, and observing weather trends. GOES satellites provide real-time weather data used to develop short-term weather forecasts. Data from the GOES satellites, combined with data from Doppler Radars and Automated Surface Observing Systems, greatly aid weather forecasters in providing better warnings for hurricanes, tornadoes, thunderstorms, winter storms, flash floods, and other severe weather. These warnings help to save lives, preserve property, and benefit commercial interests.

Launches are scheduled to replace aging satellites in order to maintain two operational GOES satellites in orbit at all times - one each at an eastern and western continental U.S. longitude. Depending on launch facility availability and economic factors, additional satellites may be launched into orbit at certain times and placed in either standby or storage mode, ready to replace an impaired or failed operational satellite. In 2003 the first satellite of the GOES N series will be launched while planning in support of the next series of GOES satellites continues.

NOAA also maintains the Polar-orbiting Operational Environmental Satellites (POES). These satellites provide about 90% of the data used in the National Weather Service's Numerical weather forecasting model and are becoming an important source of climate data. Since 1994, NOAA has been working with the Department of Defense (DoD) on the National Polar-orbiting Operational Environmental Satellite System (NPOESS), a nest generation series of polar satellites which merges the Nation's civil and military polar-orbiting meteorological satellite systems into a single program. NOAA and DoD each provide 50% of the funding for NPOESS while NASA contributes risk reduction activities.

Both the GOES and polar satellite systems depend on ground-based information technology systems to command and control the operations of the satellites and acquire their remotely sensed data. The ground systems also support the launch, activation, and evaluation of new satellites and continual in-depth monitoring of satellite functions.

The GOES and POES applications support Commerce Goal #3.

Comprehensive Large Array Data Stewardship System (CLASS)

NOAA is responsible for archival storage and management of environmental data and information. NOAA has hundreds of millions of environmental observations stored on a variety of media dating back as far as the mid-1800s. These data support the Nation's ability to ensure human safety and welfare, sustain economic stability and growth, and maintain environmental integrity. Much of these data and information is recorded on paper, film, and digital media.

Access to the environmental records is limited, and as the storage media deteriorates with age, the records are in danger of being lost. These data are of great value to researchers, both from Government and academia, to private industry, and to the general public. The goal of NOAA's Comprehensive Large Array Data Stewardship System (CLASS) is to preserve the

meteorological, climatological, geophysical, and oceanographic records and to make the data and information more accessible.

The CLASS conducts many environmental data rescue activities to preserve historical data before they are lost or become unrecoverable, thereby preserving these data to assist in finding solutions to today's problems. Many archived data sets that were in danger of being lost due to aging storage media were rescued through migration to modern digital media.

The CLASS application supports Commerce Mission Goal #3.

High-Performance Computing and Communication Office (HPCC)

The high-end computing element of the HPCC Office supports the National Weather Service (NWS)/ National Centers for Environmental Prediction (NCEP) software development for large multiprocessing systems. Initially, NCEP relied on collaborations fostered with other agencies in the HPCC Program as they explored the capabilities of this new class of computers. More recently, HPCC has supported numerous post-doctoral studies working on innovative approaches to running NCEP software model codes on modern computers such as the Cray T3E at NASA Goddard, and the new SP2 at NCEP. HPCC's support resulted in a suite of benchmarks easily ported across all architectures, leading to a highly competitive supercomputer procurement and outstanding value for the Government. It also facilitated the rapid porting of the NCEP software suite to the winning IBM SP2. Work continues to develop codes capable of taking full advantage of the 2,000 processor SP2 due to be delivered to NCEP later this year.

At the Geophysical Fluid Dynamics Laboratory (GFDL), HPCC has now supported two generations of new high-end computing (the Cray T-90/T3E procurement in 1995, and the current replacement acquisition), without which GFDL would have had substantially less capability to perform its mission in computational atmospheric and climate sciences. In addition, HPCC has supported personnel at GFDL with expertise in programming highly parallel systems, making possible the modern versions of the modular ocean model (MOM 4), and the new flexible modeling system (FMS). Future work will emphasize component-oriented programming for rapid, flexible exploration of new modeling insights.

HPCC has supported the development of the scalable modeling system (SMS) at the Forecast Systems Laboratory (FSL) over the last several years. SMS is a software approach to exploit the parallelism inherent in problems in geophysical dynamics. HPCC also supported the recent procurement of a highly parallel system for FSL that has provided them with a platform to further explore the possibilities of parallel computing and the power to develop and run limited domain cloud resolving models at resolutions of 3 km or less.

The HPCC supports Commerce Mission Goals #2 and #3.

Bureau of the Census

2010 Census

Though early in the decade, planning and preparatory activities for the 2010 Census are well underway. In the 2000 Census, Commerce leveraged technology to automate many of the processes that were formerly done through labor-intensive means. The Census Bureau will continue to exploit the use of advanced technology to support process improvements in the 2010 Census. Specific attention will be focused on the use of mobile computing devices, offering a major opportunity to develop more efficient data collection/capture processes for the 2010 Census.

The vision of the Bureau of the Census is "To be the preeminent collector and provider of data about the people and economy of the United States". Goal 3 in the current BOC Strategic Plan states that BOC will re-engineer the 2010 Decennial Census to be more efficient and cost effective, provide richer data, improve coverage, and reduce risk in meeting constitutional and legislative mandates.

The design of an integrated logical architecture to span the entire Decennial lifecycle will identify opportunities to gain greater efficiencies in 2010. The BOC will analyze how to re-partition functions to achieve these efficiencies. The design of an integrated logical architecture will allow seamless interfaces, flexibility to select the implementation solution, and flexibility for new technology insertion.

This re-engineering project will allow the BOC to establish a framework, by the end of FY 03, for defining processes, systems, and technologies for the 2010 Census. This investment in early planning will enable us to develop a fully integrated architecture for the entire Decennial lifecycle

Because the Decennial Census is such a large undertaking, the Department considers it to be a special management concern and monitors the project closely.

The Decennial Census supports Commerce Mission Goal #2.

Data Access and Dissemination System (DADS)

In 1997, the Bureau of the Census began creating the Data Access and Dissemination System (DADS), composed of the internal and external American FactFinder (AFF) systems, the Data Product Production (DPP) systems, and a "data mining" capability against detailed data files (Advanced Query System (AQS)). These systems were jointly designed to create, produce, and disseminate Census 2000 and other Census Bureau data and products. AQS is a generalized information system that makes Census statistical data more accessible to the public and easier to use by both Census Bureau data specialists and external users. Reporting is simplified, reducing wait times and easing data customer burdens to answer questions concerning their data. AQS allows the free-form querying of Census 2000 detailed data sets, with complex queries, table formats, and contents determined by the user, constrained by disclosure filters.

The DADS Program exists simultaneously under a development and implementation paradigm. DADS will continue to be heavily employed through FY2003 for the creation and dissemination of Census 2000 data products and well into FY2004, as additional Census data products are made available. Beyond FY2002, DADS Program development will focus on a more comprehensive dissemination of American Community Survey and 2002 Economic Census data and continue to focus on program goals such as disparate data sets, integration with Census Bureau Information Systems (e.g., the Corporate Metadata Repository and the Federal Electronic Research and Review Extraction Tool (FERRET)), and a closer integration with the Topologically Integrated Geographic Encoding and Referencing (TIGER).

The DADS application supports Commerce Mission Goal #2.

National Institute of Standards and Technology (NIST)

Time Scale and Time Dissemination

The Time Scale and Time Dissemination System provides the Nation's official standards for time and frequency to meet critical industrial needs, including time stamping of electronic financial transactions, telecommunications, electric power transmission, transportation, navigation and positioning (including support of the Global Positioning System), and various defense applications. Time dissemination methods are developed using Internet and radio broadcasting for industrial, consumer, Government, and scientific applications, which serve millions of customers daily.

This application supports Commerce Mission Goal #2.

Bureau of Industry and Security (BIS)

Export Control Automated Support System (ECASS)

The Bureau of Industry and Security promotes U.S. national and economic security and foreign policy interests by managing and enforcing the Department's security related trade and competitiveness programs. BIS plans to replace its primary system, the Export Control Automated Support System (ECASS), to meet changing work processing requirements. The purpose of the replacement effort is to develop a cross-functional information architecture within BIS. This architecture includes office automation, data base management, advanced document management, telecommunications, digital data encryption, imaging, and networking. The replacement of paper processes with electronic processes is key to accomplishing BIS's goals. In a collaborative effort with the Departments of State and Defense, BIS is also pursuing USXPORTS, a system to facilitate export licensing.

The ECASS application supports Commerce Mission Goal #1.

International Trade Administration (ITA)

Total Networked Compatibility

ITA strives to increase the competitiveness of U.S. business in the world economy by promoting U.S. exports, fighting unfair foreign trade barriers, and negotiating and implementing both multilateral and bilateral trade agreements. Major operational issues that ITA faces in its support of IT operations include acquiring business quality global telecommunications and maintaining the IT infrastructure domestically and internationally.
IT initiatives include Total Networked Compatibility (TNC) that provides global IT infrastructure support to ITA headquarters, domestic export assistance centers, and international operations sites. TNC projects include the acquisition and support of personal computers, networking, telecommunications, and information dissemination and computing capabilities.
The TNC supports ITA's program systems including the Trade Policy Information System.

ITA's Total Networked Compatibility application supports Commerce Mission Goal #1.

International Trade Process Streamlining (ITPS)

ITPS is a comprehensive multi-agency initiative whose goal is to increase the number of small U.S. business exporters and the dollar value of export transactions.   ITPS seeks to accomplish this goal by improving access to Government export programs and reducing the barriers that small and medium-sized enterprises (SMEs) encounter when seeking help to export their products or services. Commerce, as chair of the Trade Promotion Coordinating Committee (TPCC), will coordinate this effort with input from key partners including the US Department of Agriculture, the Export-Import Bank of the United States, the Small Business Administration. Other TPCC agencies, including Trade Development Agency, the State Department, and the Overseas Private Investment Corporation are also potentially important players.

Export counseling, finance, and market entry services offered by the Federal Government are spread across 19 Federal agencies. Intelligence reports on foreign markets are likewise generated across multiple agencies -- each with their own unique URLs, terminology, and navigational schemes. In an attempt to help remedy this situation, Export.gov was launched in September of 2000. The site offers exporters a single, easy-to-remember URL to access all export-related programs, counseling, and market research offered by the Federal Government. The focus of Export.gov is to help simplify and unify export promotion and financing activities across multiple agencies.

The International Trade Process Streamlining Initiative intends to build on the success to date of Export.gov. The initiative is made up of two separate, but closely related projects:

> ➢ Simplifying Trade Process Activities (STPA) -- a series of trade process-enhancing modules aimed at simplifying the export process and reducing the burden of U.S. SMEs; and

➢ Expansion of the Export.gov Website and IT infrastructure – aimed at improving the accessibility of Government export services, the online delivery of timely market research and trade opportunities, and the usability of Export.gov as a whole.

Both ITPS projects will improve the exporting community's experience with the Federal Government's export facilitation services. It is expected that STPA, in conjunction with the expansion of Export.gov, will increase the number of small business exporters and the value of US export transactions. Further detail regarding the three ITPS projects is provided below:

SIMPLIFYING TRADE PROCESS ACTIVITIES (STPA)

Simplifying Trade Process Activities is a series of modules designed to enhance various export assistance process and improve the online customer interface. While some STPA modules will initially be developed for use by ITA, others (e.g., One-Stop One Form and BuyUSA integration with the Foreign Agricultural Service) will immediately benefit multiple agencies, and most modules will eventually involve cross-agency collaboration and efficiencies.

EXPANDING EXPORT.GOV

Export.gov is ITA's face to the U.S. business community and has recently received a mandate from the Administration and OMB to serve as the Federal Government's single one-stop portal targeting the U.S. exporter population. As such, Export.gov's mission is identical to that of ITA and the TPCC as a whole and is the primary Website through which they will convey and execute their strategic objective - to increase global trade opportunities for U.S. firms and to ensure fair and open markets.

While the electronic delivery of trade-related market research and program information through Export.gov and its various Websites has always been deemed important, it has taken on new significance as U.S. companies increasingly depend on the Internet to access timely information and carry out functions necessary for exporting. This module will involve creation of a centralized Web development team for Export.gov, which will deploy a content management system (CMS) to ITA's offices and its TPCC/Export.gov agency partners. Commerce and ITA will look to take advantage of the CMS shared services environment being purchased by Firstgov, if deemed practical and cost-effective.

ITPS holds the potential to truly transform the way small businesses export. Currently, only a small percentage of U.S. small businesses export, and of those who do, two-thirds export to only one market (most commonly Mexico or Canada). In addition, the majority of these companies do not export every year. These non-exporting and under-exporting SMEs represent an immense, untapped source of future U.S. employment and prosperity. If through this project the U.S. could realize a modest 1/2 percent increase in the level of SME exports ($1.1 billion), this would result in a significant growth in export-related employment – approximately 19,000 jobs. Recent studies have shown that exporting firms have been found to pay 15 percent higher wages than the average firm and go bankrupt at a significantly smaller ratio than non-exporting firms.

Internally, consolidating and streamlining the Web presence via expanding Export.gov, alone, will enable ITA to dramatically improve the delivery of export/trade-related information to the public and redeploy as much as 30,000 trade specialist man-hours toward export promotion, market compliance, and trade advocacy issues for which they are intended. Other TPCC/Export.gov partners to whom the common CMS system will be deployed can realize similar benefits.

ITA has established performance goals and measures, expressed as follows:

➢ In FY 2004, demonstrate an increase of 2,500 U.S. exporters entering a new export market, an increase of 350 first-time exporters, and an increase of 0.5% in the number of exports to priority markets.

➢ For fiscal years beyond FY 2004, demonstrate annual performance improvements of:

o Annually, demonstrate a 10 percent reduction in the time required in filling out forms and locating export information.

o Annually, demonstrate a 10 percent growth in the number of visitors accessing program and market research information via Export.gov.

o Annually, demonstrate a 10 percent increase in the number of trade leads accessed by SMEs via Export.gov.

o Annually, demonstrate a 6 percent increase in the ease of customers' use of the Exprt.gov portal, an increase in the percentage of customers expressing high satisfaction with ITA products and services, and an increase in the number of Export.gov visitors accessing market and program information.

The ITPS initiative supports Commerce Mission Goal #2.

National Telecommunications and Information Administration (NTIA)

Spectrum Management

This project provides the information technology support required for NTIA to manage the Federal Government's use of the Radio Frequency spectrum. NTIA processes between 6,000 and 10,000 frequency assignment actions monthly. To preclude harmful interference between stations, these actions (applications from Federal agencies for new frequency assignments or revisions of existing assignments) must be coordinated with other Federal agencies, and in many cases with the Federal Communications Commission and the Government of Canada. NTIA processes frequency assignment actions using its Frequency Management and Records System (FMRS) software and networked systems.

The planned enhancements to the spectrum management system will support technology development and commercialization by improving use of the radio spectrum through increased sharing and spectrum efficiency. It provides a more rapid method for Federal agencies to obtain the spectrum necessary to operate their radio communications. It also provides a method for radio-communication system manufacturers to ensure that their systems meet Federal standards and provides Federal agencies with a means to obtain technical information on radio communications for planning future spectrum use.

NTIA's Spectrum Management applications support Commerce Mission Goal #2.

Bureau of Economic Analysis (BEA)

Economic Accounts

BEA provides a clear picture of the U.S. economy through the preparation and dissemination of a series of economic accounts, supplemented by other measures of economic activity. Having developed and implemented a comprehensive hardware architecture over the last several years, BEA is embarked on re-engineering its major business processes that support preparation of the economic accounts. This work is supported by a software architecture and standards to ensure that comprehensive architectural goals are achieved.

The economic accounts prepared by BEA support Commerce Mission Goal #2.

IT Initiative	Goal 1: Provide the information and the framework that enable the economy to operate efficiently and equitably.	Goal 2: Provide the infrastructure for innovation to enhance American competitiveness.	Goal 3: Observe and manage the earth's environment to promote sustainable growth.
Commerce Administrative Management System	☑	☑	☑
Electronic Government	☑	☑	☑
Census MAF/TIGER		☑	
NOAA NEXRAD PPI			☑
USPTO Patents e-Gov		☑	
NOAA Advanced Weather Interactive Processing System (AWIPS			☑
NOAA Geostationary Operational Environmental Satellites Ground System (GOES)			☑
NOAA Comprehensive Large Array Data Stewardship System (CLASS)			☑
High-Performance Computing Center (HPCC)		☑	☑
2010 Census Systems		☑	
Census Data Access and Dissemination System (DADS)	☑	☑	
NIST Time Scale and Time Dissemination		☑	
BIS Export Control Automated Support System (ECASS)	☑		
ITA Total Networked Compatibility	☑	☑	
ITA International Trade Process Streamlining (ITPS)	☑		
NTIA Spectrum Management		☑	
BEA Economic Accounts	☑		

Figure 1 – Applicability of Selected IT Initiatives to DOC Strategic Goals
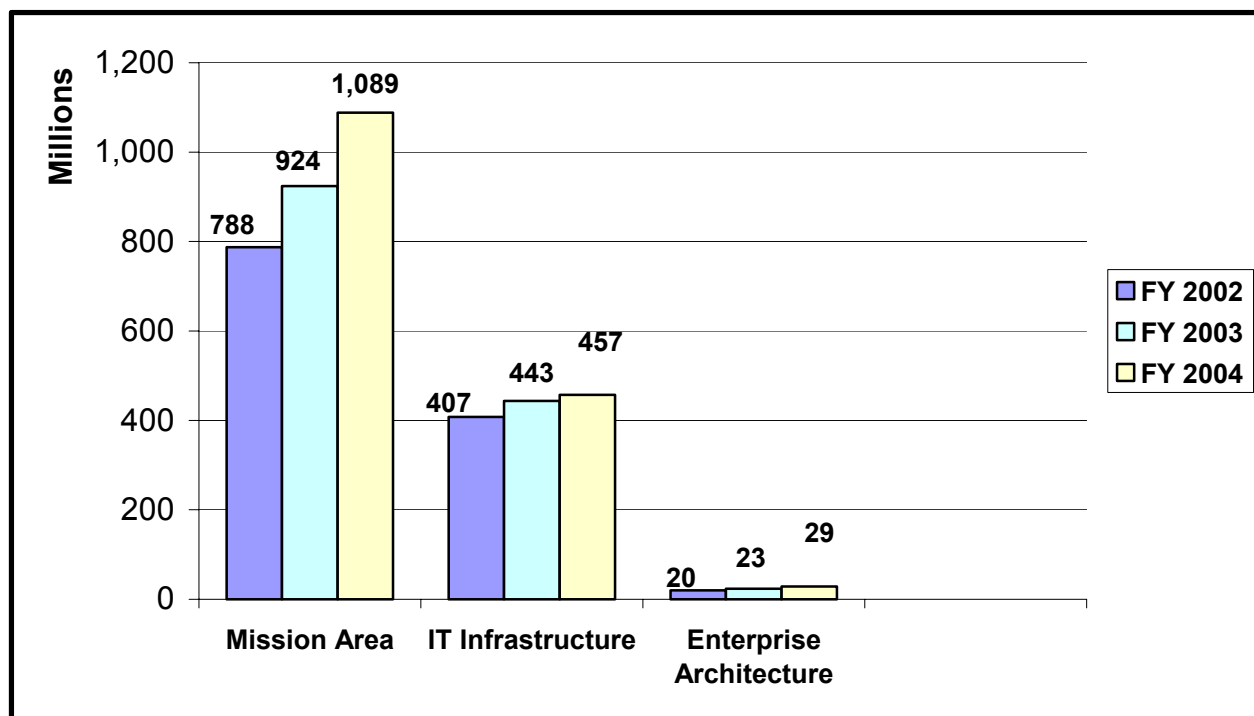
Figure 2 - DOC IT Investment Portfolio by Fiscal Years 2002 - 2004 and Portfolio Area of Expenditure

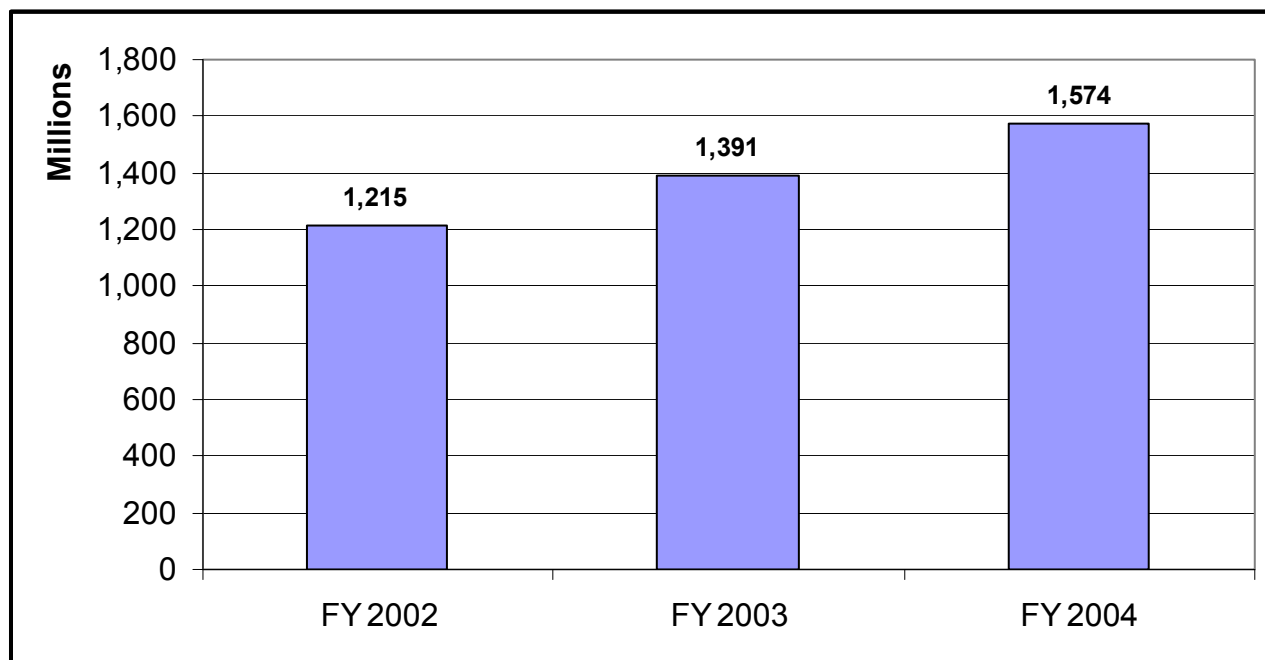Note: Amounts for FY 2003 & 2004 (in both Figures) reflect numbers from the President's Budget.

Figure 3 – Total DOC IT Investments FY 2002 Through FY 2004

Management Concerns

The key areas of management concern and attention at the Department of Commerce are the 2010 Decennial Census, CAMS, and the IT Security Program.

2010 Decennial Census

The Department actively participated in the management of the 2000 Census, and will continue its vigilant oversight of the 2010 Census. The Bureau of the Census has conscientiously started its planning and initial preparatory activities for the 2010 Census. The Department will monitor progress through the Commerce IT Review Board and other means. Of particular concern is the need to maintain a steady funding stream through the decade in support of modular development and implementation of the 2010 Census systems.

Commerce Administrative Management System (CAMS)

In 1998, the Department embarked on a major course correction for implementing CAMS. To get this project back on track, the Department drastically reduced the budget for CAMS deployment, completely reorganized the project management approach to clarify lines of accountability and responsibility, and piloted the system at the Bureau of the Census. CAMS was successfully deployed at the Bureau of the Census in FY 1999, eight other operating units from FY 2000 through FY 2003, and other deployments, including those at NOAA and NIST, are moving toward completion in FY 2004. The Commerce IT Review Board is carefully monitoring the continued implementation of CAMS, with particular focus on cost containment and strategy for the future.

IT Security Program

The security of IT systems is an area of heightened concern throughout the Department. Recent audits by the General Accounting Office and the Office of the Inspector General, coupled with revealing self-assessments by all Commerce operating units, have highlighted the need for improvements in Commerce's IT security management and implementation. Commerce has declared IT security to be a material weakness and has aggressively pursued a course of correction. Specific actions achieved to date include preparation of revised policy, establishment of a Federation of Computer Incident Response Teams, regular compliance reviews and penetration testing, and annual security awareness training. Despite significant improvement in the security posture of IT systems in all operating units, this area remains a special management concern and is being close monitored by the CIO.